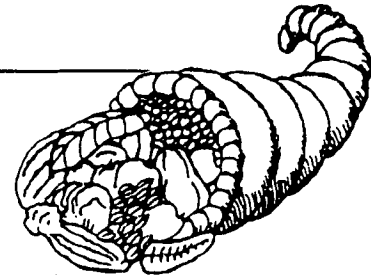


THE MCDUGALL NEWSLETTER



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INFORMATION

"NATURAL" CHOLESTEROL MEDICATION

Your first line approach for lowering cholesterol is a starch-based diet (high-complex carbohydrate, low-fat, no-cholesterol). But, sometimes diet alone is insufficient because of an inadequate response, or commonly, poor compliance. Your second line approach is to add medication in hopes of achieving an ideal level of 150 mg/dl or less. Many people with high cholesterol resist taking cholesterol-lowering medications because of the side effects and cost. There is an in between step which uses foods, components of foods, and non-toxic substances as "medicine" to lower cholesterol. These more "natural" approaches have the advantages of being effective, non-prescription, relatively low-cost, and usually with mild side effects.

GARLIC

Since 1985 nearly 1000 studies have been published on the medical benefits of garlic and related plants, such as onions and scallions. The principal active ingredient of garlic is alliin, a sulphur containing compound, which causes the garlic odor.

Garlic benefits heart disease in many ways, by: lowering total cholesterol and "bad" LDL-cholesterol, raising "good" HDL-cholesterol, lowering triglycerides, inhibiting blood clotting (decreasing platelet adhesiveness), and increasing the break up of early blood clot formation (fibrinolysis). Garlic also lowers blood pressure and improves the flow of the blood (reduces viscosity). (Mansell P. Br Med J 303:379, 1991). Natural chemicals in onions have similar activities as garlic.

Garlic lowers cholesterol by inhibiting a key enzyme involved in the body's own synthesis of cholesterol (hepatic hydroxymethylglutaryl coenzyme A, abbreviated HMG-CoA). This cholesterol-lowering activity is similar to that of Mevacor (lovastatin), the most popular and effective cholesterol lowering medication on the market. Garlic is less potent than Mevacor, but after several months of use the effectiveness may become similar (Br Med J 303:785, 1991).

There are a few troublesome side effects from garlic. The most notorious is the odor, which appears to be unavoidable, since the major active ingredient, alliin, produces the odor. Preparations advertised as "odorless" contain alliin, an odorless chemical, which is converted into alliin by crushing the garlic bulb. Upon ingestion the alliin is also released. The "odorless" claims refers to the preparation in the bottle,

not the effects when in the body. Other uncommon side effects include stomach and intestinal upset, asthma, and a skin rash from contact.

Representative Studies:

**Using dry garlic powder (800 mg/day), total cholesterol was reduced from an average of 265.7 mg/dl to 234.1 mg/dl and triglycerides 225.6 mg/dl to 187.8 mg/dl. A smell of garlic was reported in 21% of patients, mostly by spouses (compared to 9% in controls). The higher the initial cholesterol the better the results (Br Med J 303:379, 1991).

**A study using 800 mg of garlic powder found a significant fall in blood pressure 171/102 to 152/89 mm Hg (Br J Clin Pract 44:3,1990). One in eight reported odor.

Preparations:

Dosages are given for effective amounts used daily to lower cholesterol in scientific studies (Br J Pharmac 28:535, 1989).

FORM

DOSAGE

Fresh Garlic Bulbs

7 to 28 cloves daily

Dried Whole Garlic Cloves

5 to 20 grams daily

Examples: California Garlic Cloves 100 (580 mg) capsules for \$6.95; Kwai 100 (300 mg) tablets for \$9.99; Natural Brand Super Garlic 100 (1000 mg) for \$5.99 (in oil); Quintessence 250 (500 mg) capsules \$12.95

Garlic Powder

600 to 1350 mg daily

Examples: Natural Brand Odorless Triple Garlic 100 (810 mg) tablets for \$12.99; Garlicin 30 (300mg) capsules for \$4.99

Kyolic

4 capsules daily

Examples: Kyolic HiPo 100 (300 mg) capsules \$10.49; Kyolic Garlic plus 100 (540 mg) capsules \$10.49

Fresh Onions

1-2 oz. daily

CHARCOAL

Charcoal is a powerful absorbent formed by the controlled burning of an organic material, such as wood. To increase the absorbing activity it is then exposed to air or steam at elevated temperatures; this process develops an extensive network of fine pores. The charcoal is then referred to as "activated," and is twice as potent as regular charcoal. Activated charcoal is an odorless, tasteless, black powder with a broad spectrum of absorptive capacity useful for emergency treatment of many drug poisonings. Charcoal also effectively lowers cholesterol.

Charcoal appears to work by absorbing bile acids in the intestine and eliminating them from the body. Bile acids are made from cholesterol and their loss removes cholesterol. Charcoal is essentially non-toxic, but it absorbs and inacti-

vates many substances, including medications that may be necessary for your health.

Representative Studies:

******When 8 grams, 3 times a day, of activated charcoal was given for 4 weeks a 27% reduction in cholesterol was observed (Eur J Clin Invest 19:251, 1989).

******Seven patients treated with 8 grams three times a day showed a decrease of total cholesterol of 25% and "bad" LDL-cholesterol by 41%, and increased "good" HDL-cholesterol by 8% (Lancet 2:366, 1986). Side effects were negligible.

******Four kidney patients found a drop in cholesterol from 200 mg/dl to 140 mg/dl; triglycerides 181 to 543, fell to less than 150 mg/dl in three patients, with 35 grams of charcoal daily for 4 weeks (Am J Clin Nutr 31:1903, 1978).

******When compared with 16 grams of Questran (cholestyramine), 16 grams of charcoal lowered cholesterol by 23% compared to a 31% reduction by cholestyramine. Serum triglycerides were increased by cholestyramine but not by charcoal (Eur L Clin Pharmacol 37:225, 1989).

******Another study comparing 16 grams of cholestyramine with 40 grams of charcoal showed reductions of cholesterol by 21.8% by charcoal, and 16.2% by cholestyramine.

Preparations:

Least expensive is to buy the charcoal powder in bulk through your local pharmacy. They will order it for you. No prescription is required and the cost is about \$10 for 120 to 240 grams (4 to 8 ounces). One and a half to 2 heaping tablespoons (8 grams) mixed in a small amount of water can be taken 3 times a day. Preparations are also found in expensive capsules intended for relief of intestinal gas.

Examples: Charco Caps 36 (260 mg) capsules for \$6.65; Mega Charcoal Caps 75 (350 mg) capsules for \$7.95; Activated Charcoal (Nature's Herb) 100 (260 mg) capsules for \$7.99.

DIETARY FIBER

Water soluble fibers are found concentrated in fruits, dried beans, other legumes, barley, and oat cereals; all delicious foods with an added health benefit. They are more effective in people with higher cholesterol (over 200 mg/dl). In one experiment, 2 oz. of oat bran or 3 oz. of dry oatmeal lowered "bad" LDL-cholesterol levels in people with initially elevated levels (over 160 mg/dl; desirable is less than 100 mg/dl) by 10% to 15%; and total cholesterol 3% to 10% in 6 weeks (JAMA 265:1833, 1991). (A helpful list of oat bran products is found in the McDougall Program pages 101-102.)

VITAMINS

Large doses of vitamin B3 (niacin) have been used for years as a very effective treatment for elevated cholesterol and triglycerides. Reductions of 20% to 25% in cholesterol can be expected with 2000 to 3000 mg of niacin daily.

Unfortunately, side effects of flushing, gastrointestinal upset, and worsening of diabetes are common. Hepatitis (with elevation of liver enzymes) is also common with the use of time-released capsules. One study reported 8 out of 15 people on time-released capsules developed hepatitis (Am J Med 91:239, 1991). None of those on regular niacin developed hepatitis. People taking niacin should be under a doctor's care and blood tests for liver enzymes and sugar should be monitored, along with the checks on cholesterol and triglycerides.

Vitamin C will also lower cholesterol and the side effects are few. In studies using 1 gram daily there is little or no change in cholesterol. However, doubling the dose to 2 grams per day drops cholesterol by 12% (also increases fibrolytic activity by 45% and decreases platelet adhesiveness by 27%) (Atherosclerosis 35:181, 1980). Vitamin C is especially effective in people with poor vitamin C levels in their body, a common condition in those whose diet consists primarily of foods with almost no vitamin C--meat, poultry, eggs, dairy products and vegetable oils.

Vitamin E, 200 mg/day, was shown to lower total cholesterol by 15% and LDL cholesterol by 8% in 4 weeks (Am J Clin Nutr 53:1021S, 1991). In patients with cholesterol initially over 300 mg/dl, the drop in cholesterol was 31% in 4 weeks. Vitamin E comes in a dry form (without oil) which is preferable to the oil capsules.

A "NATURAL" PRESCRIPTION

Your foundation for cholesterol-lowering therapy is a starch-based diet. If you need more help (and if there is no reason not to) you may begin by adding 2 ounces of oat bran daily to your foods, or having it and/or 3 ounces of oatmeal for breakfast. Take 800 to 1300 mg of garlic powder capsules a day. Take 2 grams of vitamin C and 200 mg of a "dry" form of vitamin E a day. If the response is still not enough, try 8 grams (2 heaping tablespoons) of activated charcoal three times daily. Check your progress with cholesterol blood tests every three weeks. Your goal is less than 150 mg/dl or less.

As a last resort, try niacin, under your doctor's supervision. However, I usually recommend Questran (cholestyramine), and/or Mevacor (lovastatin) before niacin, because of fewer side effects.

RESEARCH

STRESS AND CHOLESTEROL

Lipid and Lipoprotein Responses to Episodic Occupational and Academic Stress by Raymond Niaura in the November 1991 Archives of Internal Medicine (151:2172), evaluated the effect of psychological stress on cholesterol levels in three separate groups of people. In the first group, 20 tax accountants were assessed during and after tax season.

In the second group, 24 first-year medical students, and the third group, 16 first-year medical students, were assessed midsemester and immediately before examinations. Increased demands from the job and school were perceived as stressful, and associated with lack of sleep and negative emotions. Cholesterol went down 1.5 mg/dl during tax season for accountants, and showed no change in the first group of medical students, and increased 4 mg/dl in the second group of students. According to the authors, "These results suggest that commonly occurring stressful situations do not produce significant changes in plasma lipid and lipoprotein levels."

COMMENT: Stress is often given as the cause for some of our most common diseases, including heart disease. Many patients look to stress as an explanation for why their cholesterol level failed to fall and even why it rose after a change in diet. The scientific studies have reported conflicting results concerning the effect of stress reduction on cholesterol levels. Even so, most heart disease prevention programs will include a stress reduction component.

Stress will indirectly cause you great harm if your reaction is to smoke more cigarettes, drink more alcohol and coffee, and eat more greasy foods. At St. Helena Hospital and Health Center we try to help people to reduce stress when possible and to avoid self destructive behavior at all times.

ARTHRITIS AND DIET

Controlled Trial of Fasting and one-year vegetarian diet in rheumatoid arthritis by Jenis Kjeld-Kragh in the October 1991 issue of the Lancet (338:899), found significant improvement in the arthritis of patients by changing to a diet free of gluten, meat, fish, eggs, dairy products, refined sugars, citrus fruits, strong spice, salt, preservatives, alcoholic beverages, tea, and coffee. They began a four week stay at a health farm with a 7 to 10 day "fast." The "fast" included herbal teas, garlic, vegetable broth, a preparation of potatoes and parsley, and juice extracts from carrots, beets and celery (no fruit juice). After the "fast" they were allowed to introduce a new food every second day. If pain, stiffness, or swelling increased within 2 to 48 hours the food was eliminated from the diet for at least a week.

By the end of their first month, pain, morning stiffness, joint tenderness, and number of swollen joints had decreased. Their grip strength increased and their overall health assessment improved. A laboratory test for inflammation, called the sedimentation rate, fell from 33 mm/h to 23 mm/h. They also lost an average of 17 pounds. All patients showed improvement in their arthritis. (After they left the farm all the above improvements regressed slightly, probably because they were less strict with the program).

COMMENT: This study should put to rest, forever, the Arthritis Foundation's dogma that, "There is NO special diet for arthritis. No specific food has anything to do with causing it. And no specific diet will cure it."

Unfortunately, few patients will be told of this simple

cost-free, self-help approach to a life-threatening disease, even after this well designed study. Over the past decade many case reports in excellent medical journals have shown dramatic improvements in arthritis from a change in diet. Letters to the editor commenting on this study (Lancet 338:1209, 1991) reported other successful investigations with similar treatment of arthritis using diet.

My experience has been that almost all people with inflammatory arthritis (like rheumatoid, Lupus, psoriatic, and ankylosing spondylitis) show significant improvement with a starch-based diet, and many can only be described as "cured." I often start the diet without wheat products to account for the small possibility that these gluten containing foods may cause trouble. If improvement is unsatisfactory after 3 weeks I will stop corn, citrus fruits, strawberries, and tomatoes (nuts were eliminated long before). As a last resort I will use "the elimination diet described in all my books.

Rheumatoid arthritis is life threatening: A 20 year study of the out-come of treating rheumatoid arthritis with aggressive "high-tech" medicine showed 35% of people dead, often due to the arthritis (sometimes the drugs contributed); and 19% were severely disabled; with only 18% leading a normal functioning life (Scott D. Lancet 1:1108, 1987). The best of medications did not positively influence the outcome of the disease over the long-term. Many doctors write glibly about "disease modifying" drugs. However, this is far from the truth and the idea that these drugs will be "remission inducing" has been described as "fallacious." This lack of benefit of drug therapy was reaffirmed in a recent editorial in the Journal of Rheumatology (16:1, 1989).

Considering the consistent disappointment with modern drug therapy for this disease, you would think doctors would be eager to find any effective therapy to help their suffering patients. Now that the "truth about diet and arthritis" has been corrected, let's hope we see progress in patient care.

RECIPES

ROASTED GARLIC SPREAD

SERVINGS: VARIABLE
PREPARATION TIME: 5 MINUTES
COOKING TIME: 1 - 1 1/4 HOURS

1 head garlic (try elephant garlic)

Heat oven to 300 degrees. Remove loose, papery skins from garlic. Put whole head, root-end down in a shallow baking dish. Roast for 1 to 1 1/4 hours, until garlic is very soft. Cool until it is easy to handle. Squeeze the soft garlic out of the skin. Spread on toast or bread for a delicious treat.

VARIATION: Mix the roasted garlic with 3 cups cooked white beans. Process in blender or food processor until smooth. Add 1/4 teaspoon crushed red pepper for hot spice.

Review 12/91

GARLIC SOUP

SERVINGS: 10-12 (FREEZES WELL)
PREPARATION TIME: 30 MINUTES
COOKING TIME: 1 1/4 HOURS

- 3 quarts water
- 25-30 cloves garlic, papery covering removed, left whole
- 1/2 cup barley
- 1/4 cup wild rice
- 4 onions, chopped
- 4 potatoes, chunked
- 4 carrots, sliced
- 3 celery ribs, sliced
- 4 tablespoons soy sauce
- 1 teaspoon thyme
- 1 teaspoon pepper

Place 2 cups of the water in a large soup pot. Add the whole garlic cloves and cook over medium heat for 15 minutes. Mash the garlic thoroughly before proceeding. (Use a potato masher or process in a blender or food processor.) Add the remaining water, the barley and wild rice. Bring to a boil, cover and cook 15 minutes. Add the remaining ingredients and continue to cook until tender, 30 to 45 minutes. This soup tastes even better if allowed to cool and then reheated. Make several days ahead or make with the intention of freezing for use later.

MUSHROOM GARLIC CREAM SAUCE

SERVINGS: MAKES ABOUT 2 CUPS
PREPARATION TIME: 20 MINUTES
COOKING TIME: 25 MINUTES

- 12 cloves of garlic, peeled
- 1 1/2 cups water
- 5 mushrooms, cut in half
- pinch nutmeg
- 1/4 cup soy milk, powdered (Ener G Pure Soy Quick)
- 1 tbsp. cornstarch, mixed in 2 tablespoons cold water

Blanch cloves of garlic in unsalted boiling water 3 times, changing the water each time. Combine water, blanched garlic, mushrooms and nutmeg. Simmer for 15 minutes over low heat. Stir in powdered soy milk and simmer another 5 minutes. Puree in blender and return to pan. Add cornstarch mixture. Stir continuously until thickened. Serve over brown rice, mashed potatoes, whole wheat toast, bread stuffing or any other starch. *(Same as 9/90 N.L.)*

OAT BRAN MUFFINS

SERVINGS: 18 MUFFINS
PREPARATION TIME: 35 MINUTES
COOKING TIME: 20 MINUTES

- 3 cups oat bran
- 1 cup boiling water
- 3 teaspoons egg replacer, beaten with 4 tablespoons water
- 3/4 cup honey
- 2 cups soymilk
- 2 cups grated apple
- 2 cups whole wheat pastry flour
- 2 1/2 teaspoons baking soda
- 1/2 teaspoon cinnamon

1/2 teaspoon cloves

Preheat oven to 375 degrees. Place the oat bran in a large mixing bowl. Add the boiling water and stir to mix. Set aside.

Beat the egg replacer until frothy, then add honey and soymilk. Pour into oat bran mixture and beat with electric beaters until no lumps remain. Stir in apples. Add the remaining ingredients and stir until well mixed. Spoon into non-stick muffin cups. Bake for 20 minutes. Makes 18 muffins. This recipe can be varied by using different kinds of fruit instead of the grated apple. Try the following: 2 cups grated zucchini, 2 cups blueberries, 2 cups well-drained crushed pineapple, or 1 1/2 cups raisins.

HELP

DONATIONS

TO THE MCDUGALL PROGRAM

The McDougall Lifestyle Change Research Fund--2574.1040 will be money I personally manage for research and education. The McDougall Program Fund--2574.1039 will be money managed by The McDougall Program administrative staff, and used for research and education. Send to The McDougall Program, c/o St. Helena Hospital, Deer Park, CA 94576. ALL TAX DEDUCTIBLE.

MORE HELP

Books and Audio Cassettes: The McDougall Program--\$10.95; The McDougall Plan--\$10.95; McDougall's Medicine--A Challenging Second Opinion--\$10 (Hardcover); Volume I & II of the Cookbooks--\$9.95 each. The McDougall Video--\$25. McDougall Program Audio Cassette Album (8 tapes)--\$59.95. Add postage (\$4 first book, audio album, or video and \$2 each additional item)

The McDougall Program at St. Helena Hospital, Deer Park, CA. Two weeks of physician supervised live-in care designed to get people off medication, out of surgery and living again--call 1-800-358-9195 (outside California) or 1-800-862-7575 (California).

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